WE CLAIM:

1.   A packet data communication system, comprising:

at least one access network configured to provide a wireless interface between a mobile device and the at least one access network for communication of packet data;

a core network comprising at least one core network node for supporting communication of packet data on the wireless interface; and

a controller provided in association with the at least one access network and configured to monitor at least one condition associated with the wireless interface and, if the monitoring indicates that the at least one condition is met, to send messages to the core network node in response to messages from the core network node.

2.   The communication system of claim 1, wherein the controller is configured to monitor a condition associated with signal strength on the wireless interface.

3.   The communication system of claim 2, wherein the controller is configured to monitor the condition, wherein the condition is associated with the signal strength, and wherein the signal strength comprises the signal strength of uplink link layer frames.

4.   The communication system of claim 1, wherein the controller is configured to monitor a condition that comprises expiration of a timer.

5.   The communication system of claim 4, wherein the controller is configured to monitor the condition that comprises the expiration of the timer and wherein the timer is configured to expire before the expiration of the message.

6.   The communication system of claim 1, wherein the controller is configured to monitor a condition associated with paging of the mobile device.

7.   The communication system of claim 1, wherein the controller is configured to monitor re-registration messages from the mobile device.

8.   The communication system of claim 1, wherein the controller is configured to monitor pilot signals from the mobile device.

9.   The communication system of claim 1, wherein the core network node comprises an access gateway.

10.   The communication system of claim 9, wherein the access gateway comprises a packet data support node.

11.   The communication system of claim 1, wherein the controller is provided in a base station controller.

12.   The communication system of claim 1, wherein the controller is provided in a packet control function associated with the access network.

13.   The communication system of claim 1, wherein the controller is configured to respond to messages that are sent to the mobile device on behalf of the mobile device.

14.   The communication system of claim 1, wherein the controller is configured to send a notification regarding the status of the wireless interface in response to a message from the core network node.

15.   A method in a data communication system, the method comprising the steps of:

establishing a data communication link via an access network of the data communication system to a mobile device on a wireless interface between the access network and the mobile device;

sending a message from a core network of the data communication system to the mobile device via the access network;

detecting at a controller provided in association with the access network that at least one trigger condition associated with the wireless interface is met; and

subsequent to such detection, sending a further message from the controller to the core network.

16.   The method of claim 15, wherein the step of detecting comprises detecting that the signal strength on the wireless interface has fallen below a threshold.

17.   The method of claim 16, wherein the step of detecting comprises detecting the signal strength of uplink link layer frames.

18.   The method of claim 15, wherein the step of detecting comprises detecting an expiration of a timer that is associated with the message from the core network node.

19.   The method of claim 18, further comprising sending the message as a response to the message from the core network before the expiration of the message from the core network.

20.   The method of claim 15, wherein the step of detecting comprises detecting that the mobile device has not responded to a paging message.

21.   The method of claim 15, wherein the step of detecting comprises detecting that the registration of the mobile device in the access network has expired.

22.   The method of claim 15, wherein the step of detecting comprises monitoring for pilot signals from the mobile device.

23.   The method of claim 15, wherein the step of sending the further message comprises responding on the behalf of the mobile device to the message from the core network node.

24.   The method of claim 23, wherein the step of sending the message from the core network node comprises a request, and wherein the data communication link is maintained only if the request is responded to within a predetermined time.

25.   The method of claim 15, further comprising the step of sending by the controller a notification regarding the status of the wireless interface to the core network.

26.   The method of claim 25, wherein the step of sending by the controller the notification regarding the status comprises that the status of the wireless interface is expressed by a binary value.

27.   The method of claim 25, further comprising sending the notification from the access network to the core network in response to detection that the at least one condition is met.

28.   The method of claim 25, further comprising sending the notification from the access network to the core network in response to a message from the core network.

29.   The method of claim 15, further comprising the step of buffering data packets in response to detection by the controller that the at least one trigger condition is met.

30.   The method of claim 15, further comprising the step of deciding whether data packets may be dropped or buffered in response to detection by the controller that the at least one trigger condition is met.

31.   The method of claim 30, wherein the step of deciding is made based on a local policy.

32.   A method in a data communication system, the method comprising the steps of:

        establishing a data communication link via an access network of the data communication system to a mobile device on a wireless interface between the access network and the mobile device;

        detecting at a controller provided in association with the access network that the mobile device is out of reach;

        notifying the core network that the mobile device is out of reach; and

        in response to receiving the notification, pausing from sending further data packets from the core network to the mobile device and processing the data packets in accordance with a predefined policy.

33.   The method of claim 32, further comprising processing of the data packet in accordance with a local policy.

34.   The method of claim 32, further comprising a step of buffering data packets in response to the notification from the controller that the mobile device is out of reach.

35.   The method of claim 32, further comprising a step of dropping data packets in response to the notification from the controller that the mobile device is out of reach.

36.   The method of claim 32, further comprising steps of detecting at the controller that the mobile device can be reached, notifying the core network that the mobile device can be reached, and in response to receiving the notification at the core network, continuing sending of data packets from the core network to the mobile device via the data communication link.

37.   A packet data communication system comprising:

establishing means for establishing a data communication link via an access network of the data communication system to a mobile device on a wireless interface between the access network and the mobile device;

first sending means for sending a message from a core network of the data communication system to the mobile device via the access network;

detection means for detection at a controller provided in association with the access network that at least one trigger condition associated with the wireless interface is met; and

second sending means for sending a further message from the controller to the core network subsequent to such detection.

38.   A packet data communication system comprising:

providing means for providing a wireless interface between a mobile device and an access network for communication of packet data;

supporting means for supporting communication of the packet data on the wireless interface; and

monitoring means for monitoring at least one condition associated with the wireless interface.

39. The packet data communication system of claim 38, further comprising:

sending means for sending messages to the core network node in response to messages from the core network node.